CLAIMS

What is claimed and desired to be secured by Letters Patent is as follows:

1.   A computerized method for scheduling multiple tests on a single system residing in a single test environment, comprising:

    (a)   receiving a request to run a selected test on said system at a selected start time;

    (b)   determining a time slot for said selected test;

    (c)   identifying any scheduled tests to be run on said system within said time slot;

    (d)   identifying any conflicts between said selected test and said any scheduled tests; and

    (e)   if none of said scheduled tests are identified or if none of said conflicts are identified, scheduling said selected test to run on said system at said selected start time.

2.   The method of Claim 1, wherein said system is a telecommunications system comprising one or more pieces of telecommunications equipment selected from the following group: a switch, a host computer, a voice response unit, and combinations thereof.

3.   The method of Claim 1, further comprising maintaining a database identifying a plurality of tests and corresponding run times, and wherein step (b) comprises:

    accessing said database to identify a run time for said selected test; and

    calculating said time slot based on said selected start time and said run time.

4.	The method of Claim 1, further comprising maintaining a database identifying a plurality of time intervals and corresponding scheduled tests, and wherein step (c) comprises:

partitioning said time slot into one or more time intervals;

accessing said database to identify said any scheduled tests for said time intervals.

5.	The method of Claim 4, wherein step (e) comprises updating said database such that said selected test corresponds to each of said time intervals.

6.	The method of Claim 1, further comprising maintaining a database identifying a plurality of tests and corresponding equipment lists, said database also identifying a plurality of pieces of equipment and corresponding equipment conflicts, and wherein step (d) comprises:

accessing said database to identify an equipment list for said selected test, said equipment list for said selected test comprising one or more pieces of equipment needed to run said selected test;

accessing said database to identify any equipment conflicts for said pieces of equipment needed to run said selected test;

accessing said database to identify an equipment list for each of said scheduled tests, said equipment lists for said scheduled tests comprising one or more pieces of equipment needed to run said scheduled tests; and

comparing said equipment conflicts with said pieces of equipment needed to run said scheduled tests to identify said any conflicts between said selected test and said scheduled tests.

7.   The method of Claim 6, wherein a conflict is identified if one of said equipment conflicts matches one of said pieces of equipment needed to run said scheduled tests.

8.   The method of Claim 1, further comprising:

        (f)   if one or more of said conflicts are identified, determining an alternative start time for said selected test that avoids said conflicts.

9.   The method of Claim 1, further comprising:

        (f)   running said selected test on said system at said selected start time.

10.   The method of Claim 9, wherein step (f) further comprises verifying that any prior scheduled tests have finished running before running said selected test on said system.

11.   A computerized method for scheduling multiple tests on a single telecommunications system residing in a single test environment, comprising:

(a)   maintaining a database identifying a plurality of tests and corresponding run times, said database also identifying a plurality of time intervals and corresponding scheduled tests;

(b)   receiving a request to run a selected test on said telecommunications system at a selected start time;

(c)   determining a time slot for said selected test by accessing said database to identify a run time for said selected test and calculating said time slot based on said selected start time and said run time;

(d)   identifying any scheduled tests to be run on said telecommunications system within said time slot by partitioning said time slot into one or more time intervals and accessing said database to identify any scheduled tests for said time intervals;

(e)   identifying any conflicts between said selected test and said any scheduled tests; and

(f)   if none of said scheduled tests are identified or if none of said conflicts are identified, scheduling said selected test to run on said telecommunications system at said selected start time by updating said database such that said selected test corresponds to each of said time intervals.

12.   The method of Claim 11, further comprising:

(g)   if one or more of said conflicts are identified, determining an alternative start time for said selected test that avoids said conflicts.

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13. The method of Claim 11 further comprising maintaining a database identifying a plurality of tests and corresponding equipment lists, said database also identifying a plurality of pieces of equipment and corresponding equipment conflicts, and wherein step (e) comprises:

accessing said database to identify an equipment list for said selected test, said equipment list for said selected test comprising one or more pieces of equipment needed to run said selected test;

accessing said database to identify any equipment conflicts for said pieces of equipment needed to run said selected test;

accessing said database to identify an equipment list for each of said scheduled tests, said equipment lists for said scheduled tests comprising one or more pieces of equipment needed to run said scheduled tests; and

comparing said equipment conflicts with said pieces of equipment needed to run said scheduled tests to identify said any conflicts between said selected test and said scheduled tests.

14. The method of Claim 13, wherein a conflict is identified if one of said equipment conflicts matches one of said pieces of equipment needed to run said scheduled tests.

15.   A test system for scheduling multiple tests on a single system residing in a single test environment, said test system comprising at least one processor operable to:

        receive a request to run a selected test on said system at a selected start time;

        determine a time slot for said selected test;

        identify any scheduled tests to be run on said system within said time slot;

        identify any conflicts between said selected test and said any scheduled tests; and

        if none of said scheduled tests are identified or if none of said conflicts are identified, schedule said selected test to run on said system at said selected start time.

16.   The test system of Claim 15, wherein said system is a telecommunications system comprising one or more pieces of telecommunications equipment selected from the following group: a switch, a host computer, a voice response unit, and combinations thereof.

17.   The test system of Claim 15, further comprising a storage device, wherein said processor is operable to maintain in said storage device a database identifying a plurality of tests and corresponding run times, and wherein said processor is operable to determine said time slot for said selected test by:

        accessing said database to identify a run time for said selected test; and

        calculating said time slot based on said selected start time and said run time.

18. The test system of Claim 15, further comprising a storage device, wherein said processor is operable to maintain in said storage device a database identifying a plurality of time intervals and corresponding scheduled tests, and wherein said processor is operable to identify said any scheduled tests to be run on said system within said time slot by:

    partitioning said time slot into one or more time intervals; and

    accessing said database to identify said any scheduled tests for said time intervals.

19. The test system of Claim 18, wherein said processor is operable to schedule said selected test to run on said system at said start time by:

    updating said database such that said selected test corresponds to each of said time intervals.

20. The test system of Claim 15, further comprising a storage device, wherein said processor is operable to maintain in said storage device a database identifying a plurality of tests and corresponding equipment lists, said database also identifying a plurality of pieces of equipment and corresponding equipment conflicts, and wherein said processor is operable to identify said any conflicts between said selected test and said scheduled tests by:

    accessing said database to identify an equipment list for said selected test, said equipment list for said selected test comprising one or more pieces of equipment needed to run said selected test;

    accessing said database to identify any equipment conflicts for said pieces of equipment needed to run said selected test;

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accessing said database to identify an equipment list for each of said scheduled tests, said equipment lists for said scheduled tests comprising one or more pieces of equipment needed to run said scheduled tests; and

comparing said equipment conflicts with said pieces of equipment needed to run said scheduled tests to identify said any conflicts between said selected test and said scheduled tests.

21.   The test system of claim 20, wherein a conflict is identified if one of said equipment conflicts matches one of said pieces of equipment needed to run said scheduled tests.

22.   The test system of Claim 15, wherein said processor is further operable to determine an alternative start time for said selected test if one or more of said conflicts are identified.

23.   The test system of Claim 15, wherein said processor is further operable to run said selected test on said system at said selected start time.

24.   The test system of Claim 23, wherein said processor is further operable to verify that any prior scheduled tests have finished running before running said selected test on said system.

25. A test system for scheduling multiple tests on a single system residing in a single test environment, comprising:

    means for receiving a request to run a selected test on said system at a selected start time;

    means for determining a time slot for said selected test;

    means for identifying any scheduled tests to be run on said system within said time slot;

    means for identifying any conflicts between said selected test and said any scheduled tests; and

    means for scheduling said selected test to run on said system at said selected start time if none of said scheduled tests are identified or if none of said conflicts are identified.

26. The test system of Claim 25, further comprising means for determining an alternative start time for said selected test if one or more of said conflicts are identified.

27.   A computer-readable medium having computer-executable instructions for performing a

method of scheduling multiple tests on a single system residing in a single test

environment, said method comprising:

(a)   receiving a request to run a selected test on said system at a selected start

time;

(b)   determining a time slot for said selected test;

(c)   identifying any scheduled tests to be run on said system within said time

slot;

(d)   identifying any conflicts between said selected test and said any scheduled

tests; and

(e)   if none of said scheduled tests are identified or if none of said conflicts are

identified, scheduling said selected test to run on said system at said selected start time.

28.   The computer-readable medium of Claim 27, wherein said system is a

telecommunications system comprising one or more pieces of telecommunications

equipment selected from the following group: a switch, a host computer, a voice

response unit, and combinations thereof.

29.   The computer-readable medium of Claim 27, wherein said method further comprises

maintaining a database identifying a plurality of tests and corresponding run times, and

wherein step (b) comprises:

accessing said database to identify a run time for said selected test; and

calculating said time slot based on said selected start time and said run time.

30. The computer-readable medium of Claim 27, wherein said method further comprises maintaining a database identifying a plurality of time intervals and corresponding scheduled tests, and wherein step (c) comprises:

partitioning said time slot into one or more time intervals;

accessing said database to identify said any scheduled tests for said time intervals.

31. The computer-readable medium of Claim 30, wherein step (e) comprise updating said database such that said selected test corresponds to each of said time intervals.

32. The computer-readable medium of Claim 27, wherein said method further comprises maintaining a database identifying a plurality of tests and corresponding equipment lists, said database also identifying a plurality of pieces of equipment and corresponding equipment conflicts, and wherein step (d) comprises:

accessing said database to identify an equipment list for said selected test, said equipment list for said selected test comprising one or more pieces of equipment needed to run said selected test;

accessing said database to identify any equipment conflicts for said pieces of equipment needed to run said selected test;

accessing said database to identify an equipment list for each of said scheduled tests, said equipment lists for said scheduled tests comprising one or more pieces of equipment needed to run said scheduled tests; and

comparing said equipment conflicts with said pieces of equipment needed to run said scheduled tests to identify said any conflicts between said selected test and said scheduled tests.

33. The computer-readable medium of Claim 32, wherein a conflict is identified if one of said equipment conflicts matches one of said pieces of equipment needed to run said scheduled tests.

34. The computer-readable medium of Claim 27, wherein said method further comprises:

(f) if one or more of said conflicts are identified, determining an alternative start time for said selected test that avoids said conflicts.

35. The computer-readable medium of Claim 27, wherein said method further comprises:

(f) running said selected test on said system at said selected start time.

36. The computer-readable medium of Claim 35, wherein step (f) further comprises verifying that any prior scheduled tests have finished running before running said selected test on said system.